

Public Service Commission of South Carolina Allowable Ex Parte

WORKFORCE DEVELOPMENT ISSUES IN SOUTH CAROLINA



May 2, 2018

PRESENTED BY:
Duke Energy Carolinas and Duke Energy Progress



Presenter

Bobby Simpson
Duke Energy

Director, Grid Improvement Plan Integration

People-Driven Transformation

- New technology requires new knowledge/new skills
- It takes an army to transform the grid
- A statewide initiative needs a statewide workforce
- We need workers fluent in the language of data
- Better customer service begins with people
- One goal: recruit the best, train the best, be the best



The Time to Improve is NOW



Customer expectations have changed and they want a better experience.



People rely on electricity more than ever to power their lives and businesses, and technology requires better reliability than ever before.



Severe weather events have increased, and **cyber and physical attacks** on the grid are real.



Renewable energy resources such as rooftop solar, battery storage and micro-grids are increasing demands on the energy system.

Power/Forward **CAROLINAS**



IMPROVE RELIABILITY
to avoid outages and
speed restoration

Building a smarter grid for YOU



HARDEN THE GRID
against physical
and cyber impacts

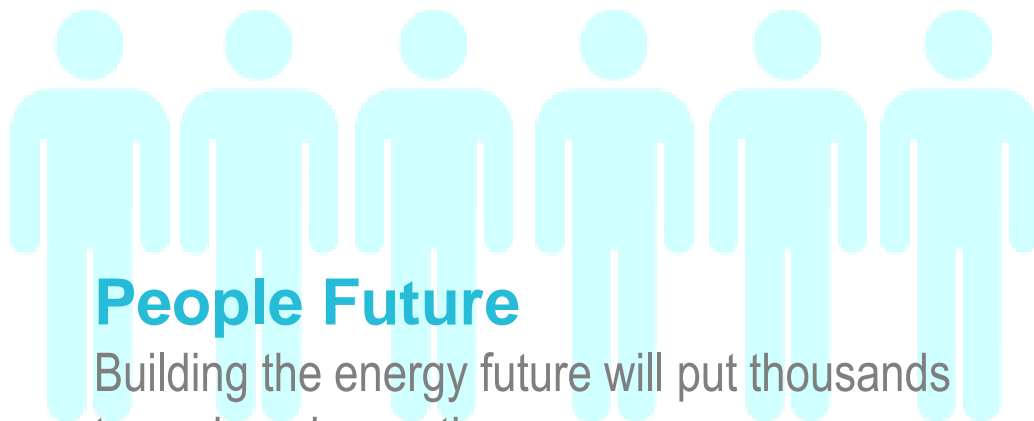


GIVE MORE OPTIONS AND CONTROL
over energy use and tools
to save money



**EXPAND SOLAR AND
RENEWABLES**
across a two-way,
smart-thinking grid

Jobs and Community Growth



People Future

Building the energy future will put thousands to work and grow the economy.

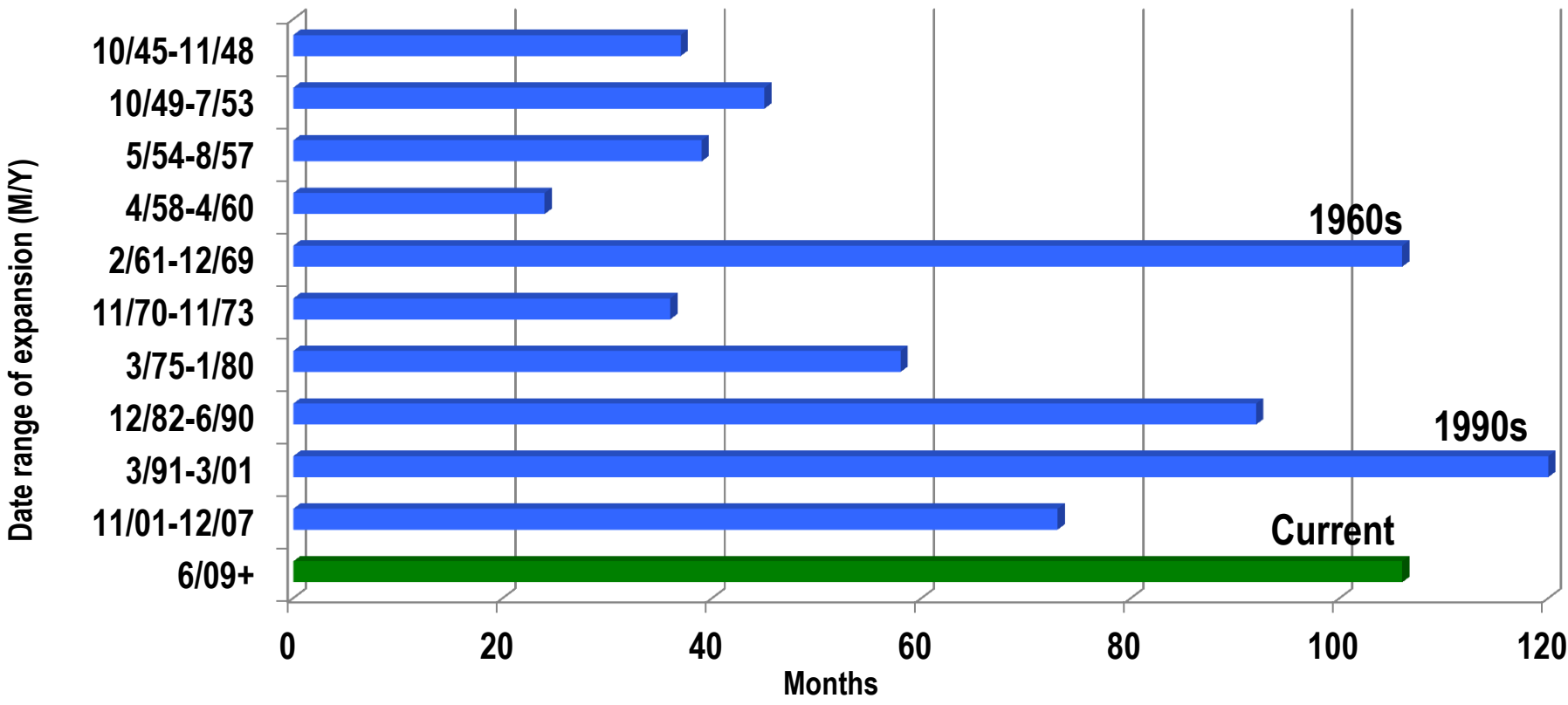
- Approximately 3,300 jobs are needed in South Carolina to support Power/Forward Carolinas, with 5,400 at peak
- Supports a highly skilled, well-paid workforce in communities across the state.
- Almost \$200 million in new salaries and wages.
- A smarter, more reliable energy grid is key to growing the state's economy.



Presenter

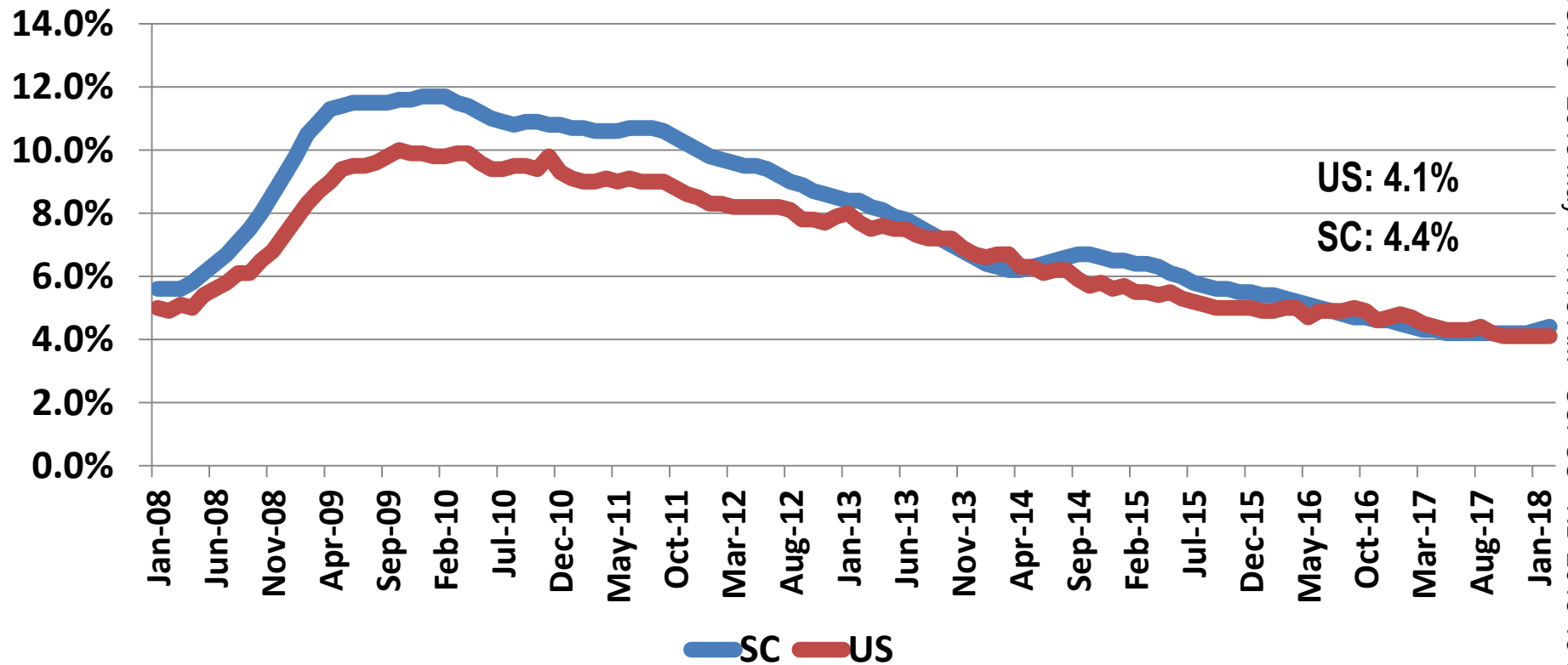
Dr. Joseph Von Nessen
University of South Carolina
Research Economist

Post-WWII U.S. Economic Expansions by Length



Source: U.S. Bureau of Economic Analysis

Unemployment Rates



Source: U.S. Bureau of Labor Statistics, SA LAUS & CPS



**Has the U.S. and South Carolina
really reached “full employment?”**

Causes of Unemployment

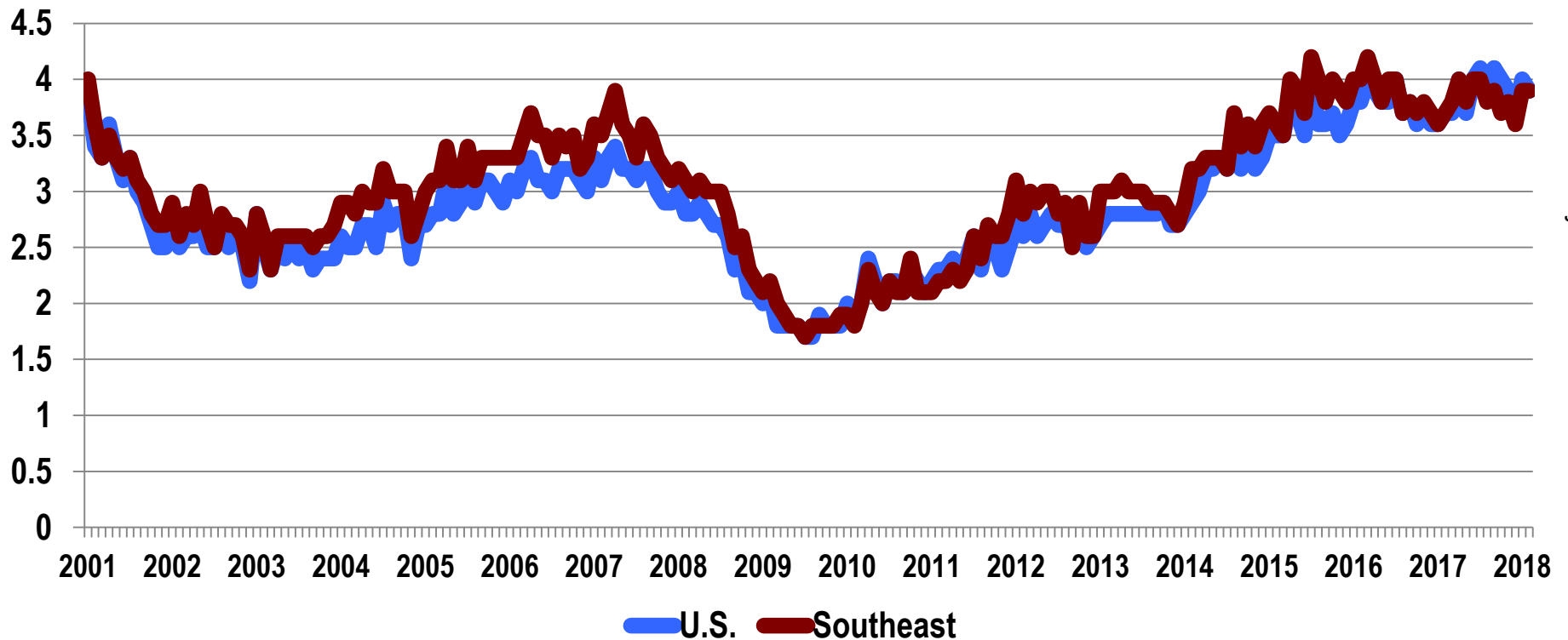


Lack of job availability



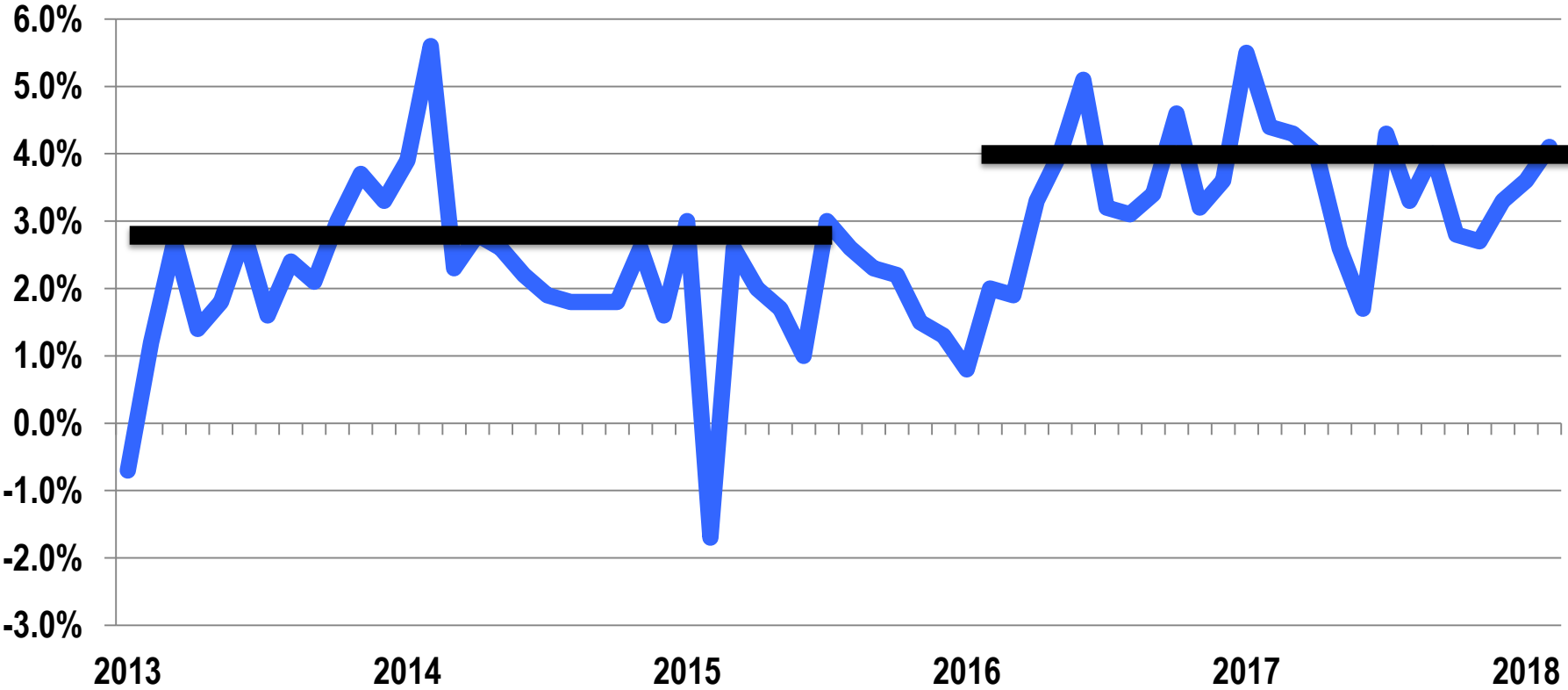
Transitional unemployment

Job Openings Rate



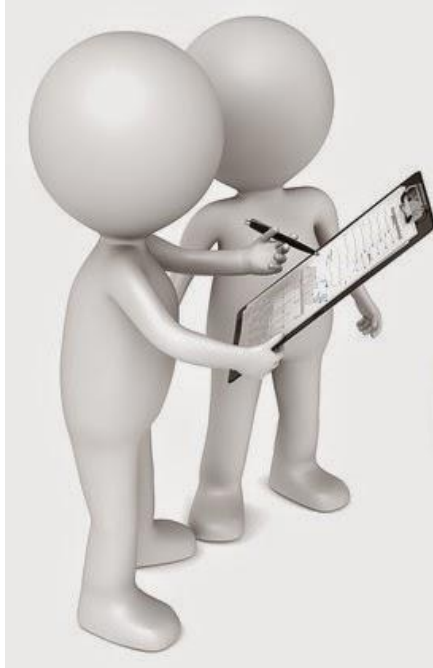
Source: BLS, Job Openings and Labor Turnover, SA

S.C. Growth in Average Hourly Earnings



Source: U.S. Bureau of Labor Statistics, CES NSA

Causes of Unemployment



**Structural/skill gap
unemployment**

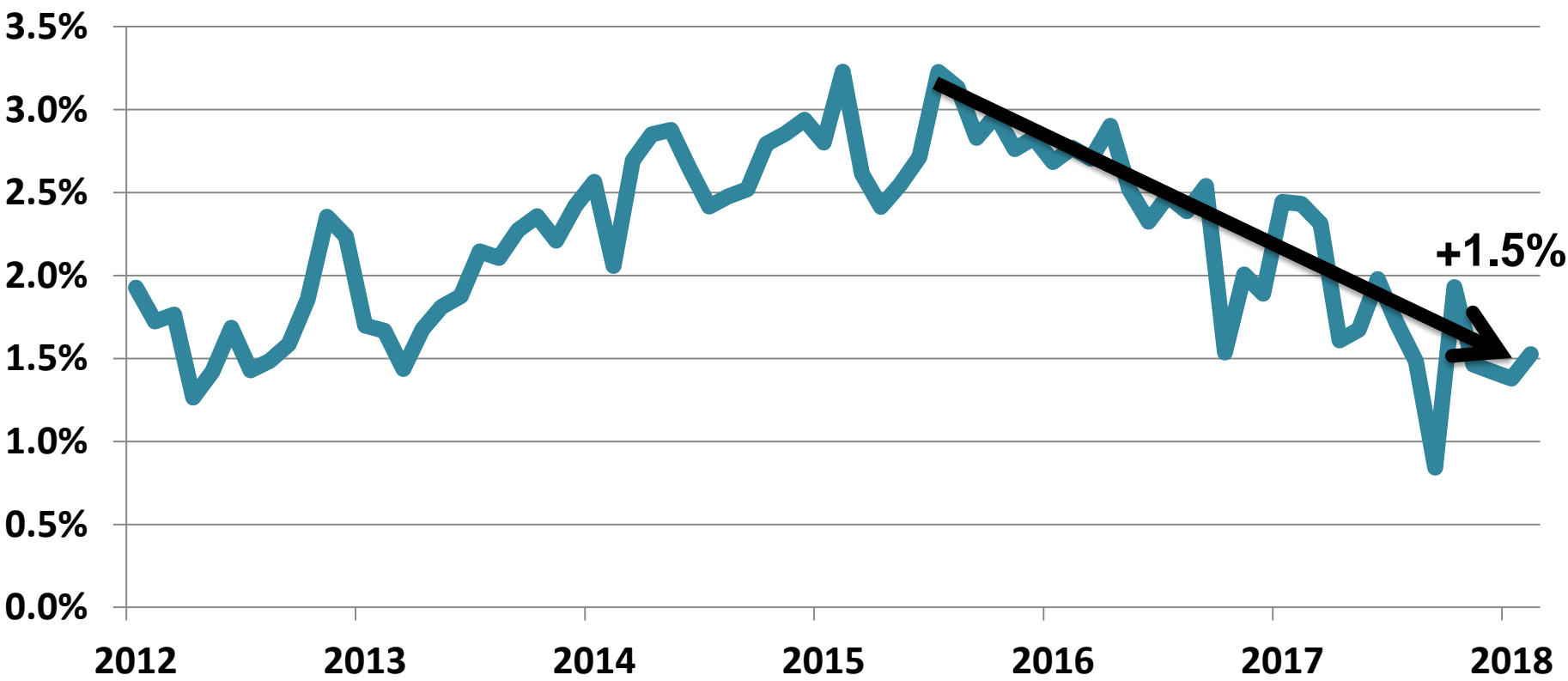


Recent reports from the Federal Reserve reveal the existence of major labor shortages all across the U.S.

Most districts cited on-going labor market challenges in finding qualified workers across skills and sectors, which, in some instances, was described as constraining growth

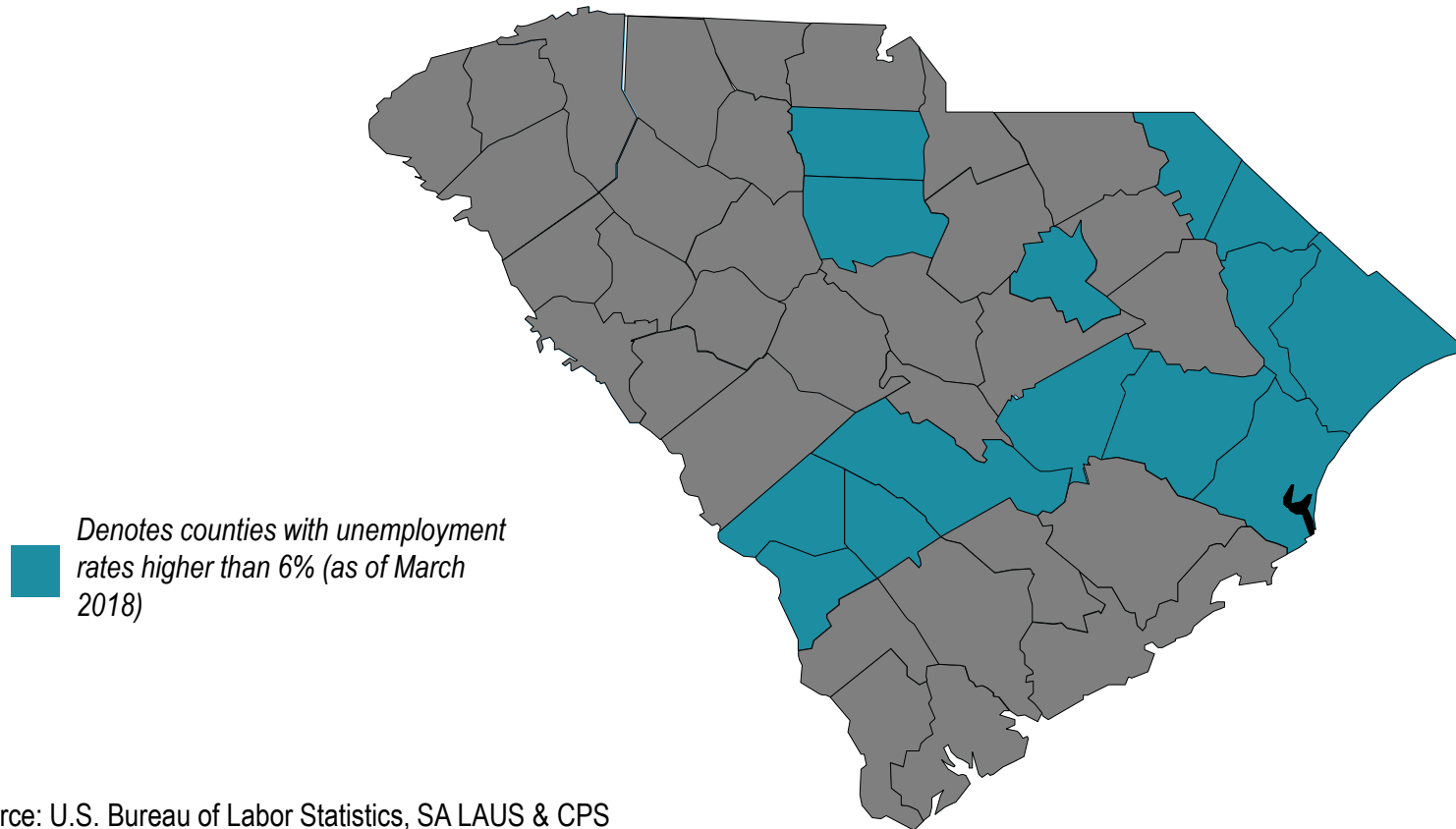
Source: Beige Book; January 2018

South Carolina Employment Growth



Source: U.S. Bureau of Labor Statistics; CES NSA

South Carolina County Unemployment



Source: U.S. Bureau of Labor Statistics, SA LAUS & CPS

Solving our Workforce Shortage is Critical for Long-run Economic Development Efforts

Volvo chose [South Carolina] because of a “well-trained labor force,” proximity to international ports, and the state’s “attractive investment environment.”



Source: CNN Money; May 2015

The Economic Impacts of Power/Forward over the Next Ten Years



3,300 South Carolina jobs supported per year



\$315 million in new wages during the peak year of construction



\$116 million in new state tax revenue



\$5 billion in total economic activity

Source: Von Nessen (October 2017)



Presenter

Rick Jiran

Duke Energy

Vice President, Community Relations

Committed to Economic Development

- Duke Energy has been recognized among the nation's ten best utility companies in promoting economic development for 13 consecutive years by Site Selection Magazine
- Since 2005, 12.7 billion & 32,788 jobs for SC
- In 2017, across Duke's 6 state service area:
- \$5.67 billion & 12,513 jobs

Economic Development Investments

2014

\$1,599,400,000 capital investment + 2074 jobs

2015

\$1,250,900,000 capital investment + 3261 jobs

2016

\$512,350,000 capital investment + 1944 jobs

2017

\$1,718,200,000 capital investment + 2635 jobs



AdvanceSC

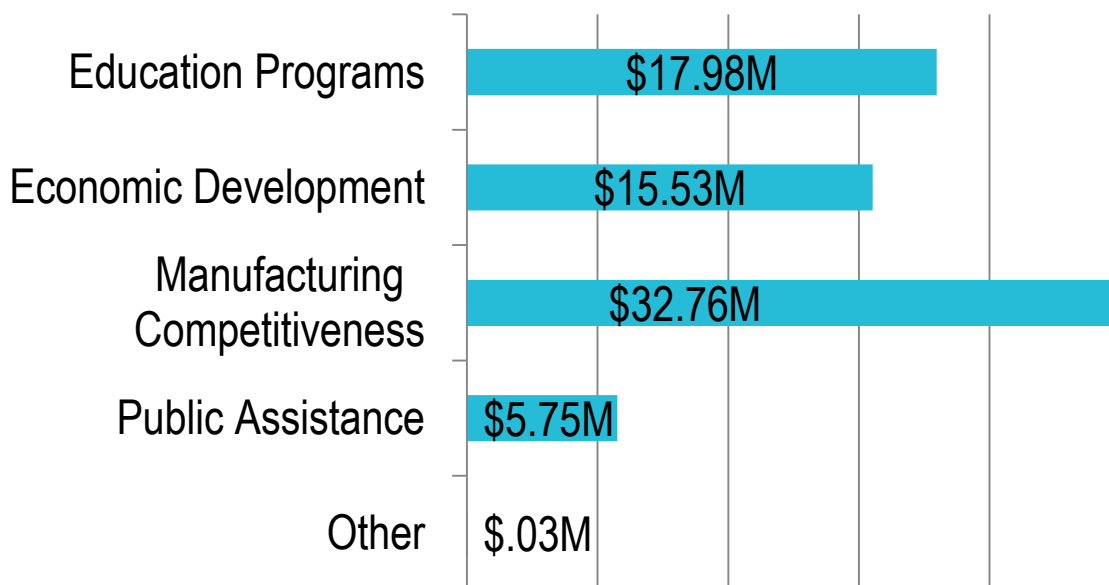
Established by Duke Energy in 2004 to support communities in Duke Energy's South Carolina service area through grants for public assistance and economic development programs.

AdvanceSC has invested more than \$70 million in South Carolina over the past 10 years.

Concentrations:

- Advancing Education to Support Industry
- Assisting Economic Development Organizations
- Enhancing Competitive Position of Manufacturers within the Service Territory

Grants 2004-2017



Duke Energy Foundation

For five years the Duke Energy Foundation has granted more than \$1 million of investments into workforce development programs that fit the following criteria:

- Workforce development initiatives to help provide a next generation workforce.
- Preparing students for 21st century economy through college and career readiness programs.
- Increases capacity for the regional workforce through higher education and job readiness/skills training programs.
- Investments in programs focused on re-training and/or retooling the workforce.
- Strengthening the transition from high school to college and/or to the workforce.
- Providing access to post-secondary education for under-represented minority and low-income populations, as well as, first generation college students.

Grant Success Stories

\$70,000

The Duke Energy Foundation grant to Florence Darlington Technical College for scholarships to **train** students in the welding program, addresses the growing need for **certified welders** within local manufacturing businesses.

Florence
Darlington
Technical College



\$50,000

The Duke Energy Foundation grant to Greenville Technical College for the 80 to Work program, meets two needs:

1. The need for trained workers to fill **entry-level machinist jobs** in the Upstate.
2. The need for under and unemployed individuals to secure employment at a living wage with the opportunity to follow this career pathway to **advanced training** with even higher hourly wages.

Greenville
Technical College





SC Technical College Lineworker Program \$1 Million Grant

Power/Forward Carolinas initiative, 10 year plan, \$3 billion investment in SC to strengthen State's energy grid, making it safer and more resilient.

Part of the investment will create demand for certain sectors of workforce, specifically certified lineworkers.

This program will:

- Focus on the need for a talent pipeline for existing and new industry demand
- Fund existing lineworker programs or help create new programs
- Includes a maximum grant of \$200,000, with a max. of \$100,000 allotted for equipment

Community Involvement that Informs Workforce Development Initiatives

Technical Colleges and Higher Education	Coker College Florence Darlington Technical College Francis Marion University Lander University Limestone College Piedmont Technical College SC Independent Colleges and Universities Spartanburg Community College Tri County Technical College University of SC – Sumter York Technical College
Workforce Development	Pee Dee Regional Advisory Board Catawba Area Regional Advisory Board SC Works Worklink Upstate Employers Network Sumter Chamber of Commerce Education Committee



Presenter

Chris Hage

Duke Energy

Director, Workforce Planning and Development

National View

Factors Impacting Workforce

External Factor

Infrastructure Modernization

Internal Factor

Aging Workforce

Nationally the electric utility industry expects to fill ~18,000 Lineworker jobs by 2025.

Source: Center for Energy Workforce Development 2017

South Carolina Lineworker Needs

South Carolina electric
utilities expect to hire
~2500 lineworkers by 2023.

Source: Carolinas Energy Workforce Consortium 2018

The Lineworker Role

Lineworkers are responsible for:

- Responding to customer calls when equipment fails and/or electrical service is interrupted.
- Construction, maintenance and repair of electrical distribution systems, including overhead and underground lines, setting poles, pulling cable, etc.
- Installing equipment such as transformers, capacitors, regulators, load control devices, meters, streetlights, safelights, etc.

Competitive Wages

Entry level Lineworkers earn about **\$40,000** per year in base compensation.

Upward progression reaching about **\$85,000** per year in base compensation.

Response to Workforce Needs

Carolinas Energy Workforce Consortium

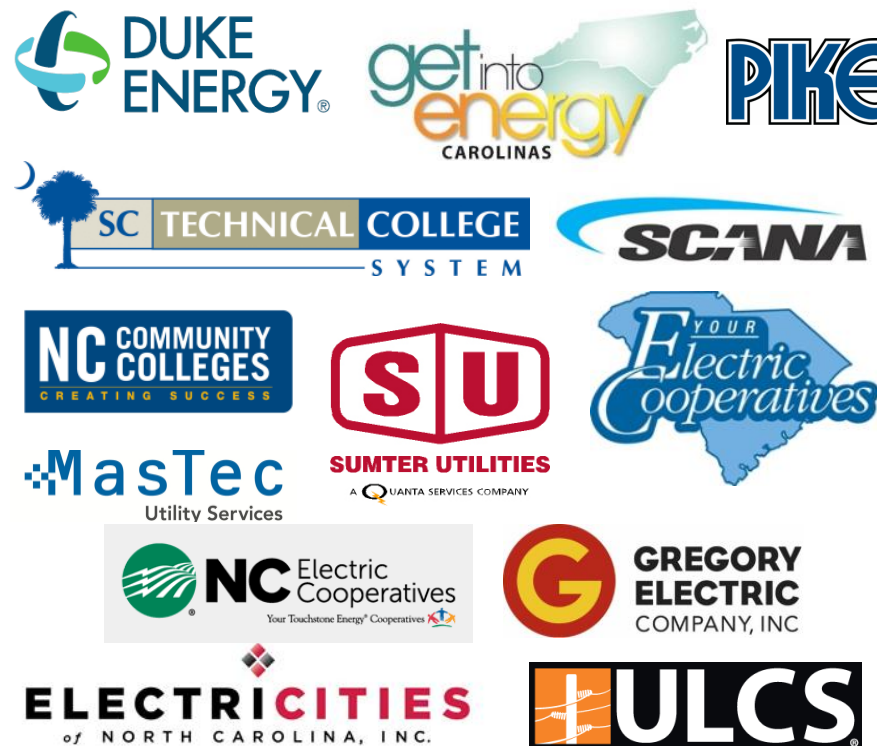
Leverage industry, education, and state resources to develop skilled workers for the energy industry in the Carolinas.

Education:

Expand enrollment capacity in current Lineworker college programs, build new programs, and establish an “industry certificate” recognized by industry partners

Recruiting:

Develop strategies to engage in career awareness events across the state, create consistent marketing material, and develop energy career education tools for educators



Typical Lineworker Program

Duration

12 weeks

Tuition

~\$4500

Placement Rates Upon Graduation

Near 100% employment

Capital Intensive Start-Up

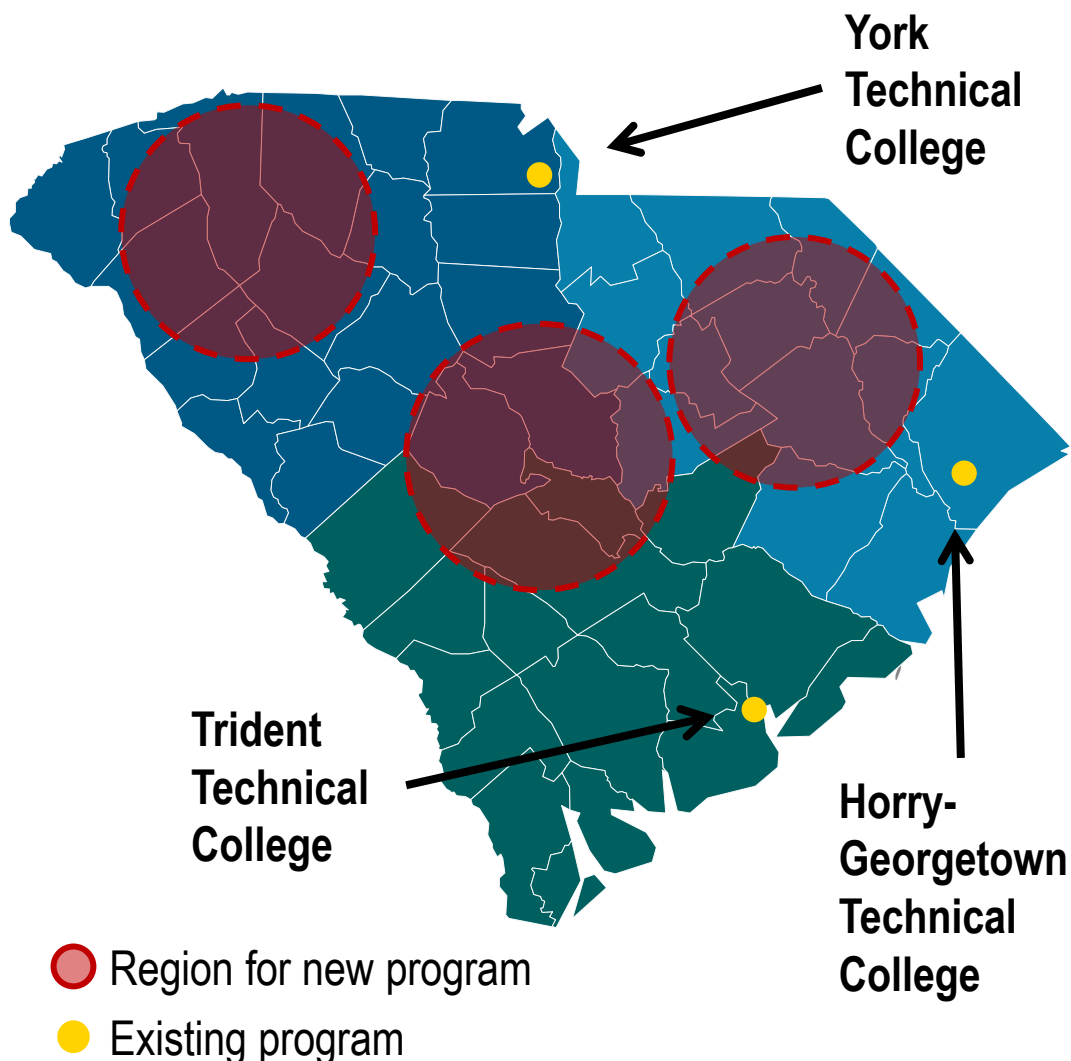
\$500,000 estimate for
tools/equipment/trucks

Instructors

Two adjunct faculty and one program
coordinator



Lineworker College Programs



To meet future demand, new programs will need to be established in the Upstate, Pee Dee and Midlands.

Annual enrollment at existing program at York Tech will need to increase.

Annual graduations from technical colleges should increase from about 60 per year, to 250 per year by 2020.

Source: Carolinas Energy Workforce Consortium 2018

Duke Energy Lineworker Program Marketing



Be part of something **powerful.**

York Technical College
Rock Hill, S.C.

Begin your career at one of our partner colleges and receive industry-recognized training that can lead to promising careers starting at more than \$40,000 per year.

What are you waiting for?
Energize your life and career today
at duke-energy.com/Lineworker.

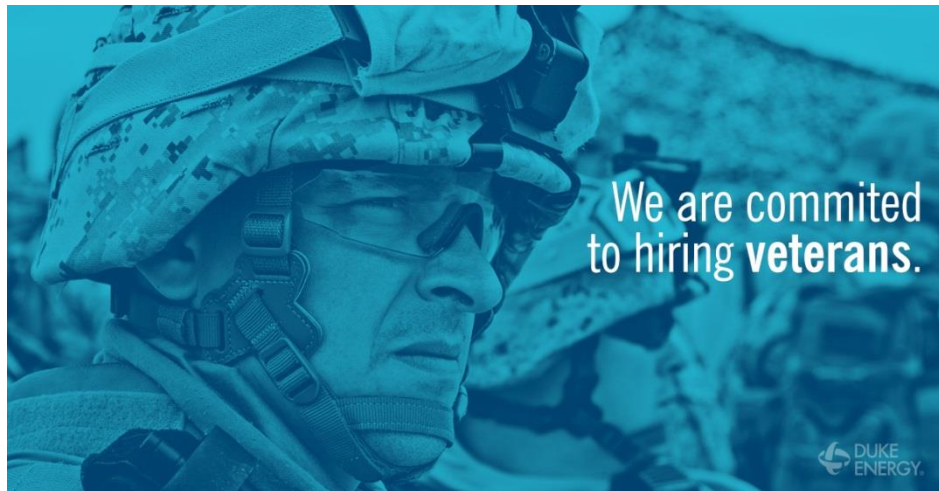
©2018 Duke Energy Corporation 180179 4/18

Military Hiring

Transitioning military and veterans are great candidates for the lineworker role.

Nearly 50 percent of lineworker hires in 2017 are veterans.

Recognized leader in military recruiting and hiring.



QUESTIONS?

